

TITRALAB AT1000 SERIES AUTOMATIC TITRATORS

Applications

- Drinking water
- Wastewater
- Food and beverage
- Petrochemical industry



Automatic titration without all the complications

Titration can be easy. The TITRALAB AT1000 from HACH LANGE uses pre-set functions that eliminate complex programming and provide accurate results.

The Karl Fischer version TITRALAB KF1000 requires only small sample quantities to deliver accurate and precise results for water content applications.

Reliable titration results

Eliminates operator interpretation and manual processes with automatic titration to quickly deliver accurate and repeatable results.

Pre-programmed titration methods detect end points and eliminate manual calculations to make results easier to achieve without advanced programming.

Simple setup and titration

Application-specific functions to eliminate complex titration setup and analysis.

HACH LANGE's unique application kits make it quick for anyone to set up and operate a test.

Technical Data*

Titration types	Potentiometric (zero & imposed current), amperometric, colorimetric
Titration modes	Sample, blank, sample with blank, QC sample, QC sample with blank
Parameter	mV/pH, Conductivity, Temperature
Resolution	mV/pH: ± 0.1 mV / ± 0.001 pH Conductivity: $\pm 0.5\%$ of reading Temperature: ± 0.3 °C
Sample stand	Integrated, magnetic stirring, beakers up to 250 mL
Electrode	INTELLICAL ("Plug & Play" digital), analogue, photolorimetric; 2 inputs available
Burette volumes available	2.5/5/10/25 mL, ISO8655-3
Burette motor resolution	20,000 steps with electronic μ stepping technology (128 μ steps/step)
Calibration	Electrode & titrant (up to 5 buffers in Auto Mode, fixed & user defined)
Calibration intervals/alerts/reminder	Yes, user defined period
Data storage	Last 100 samples, QC & blank analyses, last 10 calibrations
Data logger	On USB flash drive, CSV format, Excel compatible
Operating Interface	Soft keypad (silicone)
Display type	5,7"; Graphic colour; VGA
Calibration curves display	Direct & derivative titration curves, electrode calibration curve

Accessories	Supported peripherals: printer, PC software, balance, sample changer, keyboard, mouse, barcode reader, sampling pump, propeller stirrer
Data Storage	Date, Time, Operator IDs, Sample IDs
Maintenance scheduler	Yes, user defined
Embedded procedures	Tubing bubble purging, reagent priming, burette and pump replacement
Password Protection	Yes, user defined protected elements
Languages user interface	English, German, French, Italian, Spanish
Output	Electrode ports (x2), USB (x2), serial (x1), Ethernet (x1)
Dimensions Metric (H x W X D)	220 mm x 400 mm x 360 mm
Weight	4 kg
Material	Latene (PP), silicone, hardened glass, POM, stainless steel
Power requirements (Voltage)	100/240 V AC
Power requirements (Hz)	50/60 Hz
Operating conditions	15 - 35 °C , 20 - 80% RH, non-condensing
Storage conditions	-5 - 40 °C
Certifications	Safety IEC/EN 61010-1; EMC IEC/EN 61326-1
Warranty	2 years

*Subject to change without notice.



Robust and intuitive user interface



Application software delivered on USB key

AT1000 / KF1000 Series Titrator Models

Titrator Models		AT1102	AT1112	AT1122	AT1222	KF1121
	Burette for Titrant	1	1	1	2	1
	Integrated Peristaltic Pump	0	1	2	2	2
	Maximum Number of Applications	5	5	5	10	5
Water Applications						
AP0001.AT1102	pH/Alkalinity in Water	■	■	■	■	-
AP0002.AT1102	pH/Alkalinity & Conductivity in Water	■	■	■	■	-
AP0003.AT1112	Ca & Mg Hardness (ISE) in Water	-	■	■	■	-
AP0004.AT1112	Total Hardness (Colour) in Water	-	■	■	■	-
AP0005.AT1222	pH/Alkalinity & Hardness (ISE) in Water	-	-	-	■	-
AP0009.AT1112	Chlorides in Water	-	■	■	■	-
Food and Beverage Applications						
AP0008.AT1102	pH, Total Acidity in Food & Beverage	■	■	■	■	-
AP0010.AT1112	Salt in Food Products	-	■	■	■	-
AP0011.AT1222	pH, Total Acidity & Chlorides in Food & Beverage	-	-	-	■	-
AP0012.AT1122	Free & Total SO ₂ in Wine	-	-	■	■	-
AP0013.AT1222	pH, Total Acidity, Free & Total SO ₂ in Wine	-	-	-	■	-
Petrochemical Applications						
AP0015.AT1102	TAN (Total Acid Number) in Petrochem	■	■	■	■	-
AP0016.AT1102	TBN (Total Base Number) in Petrochem	■	■	■	■	-
AP0017.AT1112	R-SH (Thiol) in Petrochem	-	■	■	■	-
AP0018.AT1102	Br ₂ /I ₂ index in Petrochem	■	■	■	■	-
Environmental Applications						
AP0006.AT1102	FOS/TAK (Biogas)	■	■	■	■	-
AP0007.AT1122	Free & Total Chlorine, Chlorine Dioxide, Sulphite (AUTOCAT)	-	-	■	■	-
Moisture Content Application (Karl Fischer)						
AP0014.KF1121	Moisture Content (Karl Fischer)	-	-	-	-	■

Order Information

Instruments

AT1102.98	TITRALAB AT1000 Series Potentiometric Titrator, 1 Burette
AT1112.98	TITRALAB AT1000 Series Potentiometric Titrator, 1 Burette, 1 Pump
AT1122.98	TITRALAB AT1000 Series Potentiometric Titrator, 1 Burette, 2 Pumps
AT1222.98	TITRALAB AT1000 Series Potentiometric Titrator, 2 Burettes, 2 Pumps
KF1121.98	TITRALAB KF1000 Series Volumetric Karl Fischer Titrator, 1 Burette, 2 Pumps



Optional Accessories

LQV161.99.10000	DPU-S445 USB Thermal printer kit
LZE127	TITRAMASTER 1000 Series, PC software with Ethernet cable
LZE142	External pump (sample leveling), for AT Titrator
LZE143	Propeller stirrer, 70 mm shaft, for AT Titrator

Service Packages

TSE-CC-AT1000	Comfort maintenance contract for Automatic Titrator TITRALAB AT1000/KF1000 Series. Includes one onsite visit and final reporting. Extended warranty up to 5 years.
TSE-CAL-AT1000	In-house verification of burette, TITRALAB AT1000/KF1000 Series
TSE-COM-AT1000	Commissioning for Automatic Titrator TITRALAB AT1000/KF1000. Includes first level training.